IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

Claims 1-14 (canceled).

15. (currently amended)A communication path control method in a communication network comprising first and second communication equipment connected through a plurality of communication networks belonging to different telecommunication companies, a network controller connected to each of said first and second communication equipment for selectively setting private communication paths on said communication networks, and a server for supplying network control information instructing said network controller to set a private communication path on one of said communication networks, said network controller selectively supplying communication path control information generated based on said network control information to said first and second communication equipment, said communication path control method comprising the steps of:

storing a plurality of information entries each indicative of definition of a communication path and communication service provided by each of said telecommunication companies through said communication networks into said server;

receiving, by said server, a communication service request issued from a user terminal connected to one of said first and second communication equipment, said communication service request designating specifications of a private communication path to be secured for the user terminal;

retrieving, by said server, at least one information entry defining a communication path and communication service that matches said communication service request, specifying a communication path defined by the retrieved information entry as an available path for the user terminal if the communication path can satisfy said communication service request, and specifying a combination of communication paths defined by at least two information entries as the available path if no single information entry matches said communication service request and the combination of communication paths can satisfy said communication service request;

notifying said user terminal of information as to the available path by said server; and

transmitting network control information generated based on said communication service request and the definition information of said available path from said server to said network controller in response to a notification of agreement to the available path from said user terminal, thereby securing for the user terminal at least one communication path between said first and second communication equipment as the private communication path~~The communication path control method according to claim 1~~,

wherein each of said information entries includes a communication bandwidth available on the communication path,

wherein said communication service request designates a bandwidth of the private communication path requested by said user terminal, and

wherein said server selects, when no single information entry that matches said communication service request is found, a combination of communication paths defined by at least two information entries as the

available path if the total communication bandwidths available by the combination of communication paths satisfies the requested bandwidth.

16. (currently amended) A communication service request processing method for a communication network including first and second communication equipment connected through a plurality of communication networks belonging to different communication service providers, and a network controller connected to each of said communication equipment, said communication service request processing method comprising the steps of:

transmitting information indicative of definition of communication service to be offered between said first and second communication equipment by each of said communication service providers from each of management terminals associated with said communication service providers to an assistant server connected to said network controller;

storing said information indicative of definition of communication service received from each of said management terminals as an information entry of a communication service definition by said assistant server;

receiving, by said assistant server, a communication service request issued from a user terminal connected to one of said first and second communication equipment, said communication service request designating specifications of requested communication service to be secured for the user terminal;

retrieving, by said assistant server, at least one information entry of the communication service definition matched with said requested communication service, specifying communication service defined by the retrieved

information entry as an available communication service for the user terminal if the communication service definition can satisfy the requested communication service, and specifying a combination of communication service defined by at least two information entries as the available communication service if no single information entry matches with requested communication service and the combination of communication service can satisfy the requested communication service;

notifying said user terminal of information as to the available communication service by said assistant server;

receiving, by said assistant server, a notification of agreement to the available communication service from said user terminal;

transmitting network control information to secure for said user terminal the available communication service from said assistant server to said network controller; and

supplying communication equipment control information generated based on said network control information from said network controller to said communication equipment, thereby to secure for said requested communication service a part of at least one communication path between said first and second communication equipment~~The communication service request processing method according to claim 8~~,

wherein each of said information entries includes a communication bandwidth available in the communication service,

wherein said communication service request designates a bandwidth required for the requested communication service, and

wherein said assistant server selects, when no single information entry that matches said communication service request is found, a combination of communication paths defined by at least two information entries as the available path if the total communication bandwidths available by the combination of communication paths can satisfy the bandwidth required for the requested communication service.

17. (currently amended) A server for performing communication with a user terminal and supplying network control information to a network controller for controlling a communication node connected to both said user terminal and a plurality of communication networks belonging to different communication service providers, said server comprising:

memory means for storing a plurality of information entries each indicative of a definition of communication service and a communication path on the communication network provided by each of said communication service providers;

first means for searching, upon receiving from the user terminal a communication service request in which specifications of a private communication path to be secured for the user terminal are designated, said memory means for an information entry indicative of communication service and a communication path that matches with said communication service request, specifying a communication path defined by the retrieved information entry as an available path for the user terminal if the communication path can satisfy said communication service request, specifying a combination of communication paths defined by at least two information entries as the

available path if no single information entry matches said communication service request and the combination of communication paths can satisfy said communication service request, and notifying said user terminal of information as to the available path; and

second means for transmitting network control information generated based on said communication service request and the information of said available path to said network controller in response to a notification of agreement to said available path from said user terminal,

wherein said network controller instructs said communication node, in response to the network control information received from said server, to secure at least one communication path for transferring packets received from said user terminal to another communication node through the communication path which satisfies said communication service request~~The server according to claim 11~~,

wherein each of said information entries includes a communication bandwidth available in the communication service,

wherein said communication service request designates a bandwidth required for the requested communication service, and

wherein said first means selects, when no single information entry that matches said communication service request is found, a combination of communication paths defined by at least two information entries as the available path if the total communication bandwidths available by the combination of communication paths can satisfy the bandwidth required for the requested communication service.